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EXAMINER

BONURA, TIMOTHY M

ART UNIT PAPER NUMBER

2114

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/997,877

Applicant(s)

EARL ET AL.

Examiner

Tim Bonura

Art Unit

2114

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-114 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 18, 19, 25-28, 39-43, 56, 57, 63-66, 77-81, 94, 95 and 101-104 is/are rejected.
- 7) ☒ Claim(s) 6-17, 20-24, 29-38, 44-55, 58-62, 67-76, 82-93, 96-100 and 105-114 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 09/10/02.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Applicant is advised that should claim 1 be found allowable, claim 25 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

3. Applicant is advised that should claim 39 be found allowable, claim 63 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

4. Applicant is advised that should claim 77 be found allowable, claim 101 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-5, 18-19, 25-28, 39-43, 56-57, 63-66, 77-81, 94-95, and 101-104 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mosher, U.S. Patent Number 6,584,477, and further in view of Vahalia, et al, U.S. Patent Number 6,275,953.

7. Regarding claim 1:

a. Regarding the limitation of “a primary service instance operating on the computer system, including means for receiving and processing client requests, from the client processes,” Mosher discloses a system with a local database computer system that can modify the local database. (Lines 40-46 of Column 1).

b. Regarding the limitation of “at least one backup service instance operating on the computer system, including means for receiving and processing the client requests, wherein each backup service instance is locally equivalent to the primary service instance,” Mosher discloses a system with a remote database computer system that can modify the local database. (Lines 50-56 of Column 1).

c. Regarding the limitation of “means for communicating with each backup service instance to provide an indication of the determined logical requests to each backup service instance” Mosher discloses a system with an updater that applies image updates

Art Unit: 2114

and then backs out of the updates based upon commit/abort outcome is unknown. (Lines 18-25 of Column 2).

d. Regarding the limitation of “wherein the primary service instance includes means for determining which external requests, when processed by the secondary service instance, are logical requests such that processing of the determined logical requests cause the external view of each backup service instance to change,” Mosher discloses a system wherein a receiver on the remote computer system receives messages and processes the messages and update the database. (Lines 5-8 of Column 2). Mosher also discloses an RDF audit file offers logic protection to the remote computer. (Line 40-50 of Column 3). Mosher does not disclose a system wherein external request that are processed by the remote computer system cause a logical request of the remote system. However, Mosher does disclose a system in which the remote computer can execute procedures independent from the local computer system. Vahalia discloses a system wherein in a server-client computer system, the client computer can processes the messages and update the data on any of the data computer systems through changes to the logic locks which protect the data. (Lines 10-34 of Column 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the database computer system of Mosher with the data access system of Vahalia. One of ordinary skill in the art would have been motivated because Mosher discloses that remote computers can execute procedures independent from the local computer system. (Lines 26-29 of Column 2).

Art Unit: 2114

8. Regarding claim 2, Vahalia discloses a system with a first data processing system that provides service to clients. The second data processing system maintains locks on the system and thereby manages data differently. (Lines 9-15 of Column 2).
9. Regarding claim 3, Vahalia discloses a system with operational data processing systems and backup system with different network interface addresses that require setting when fail over occurs. (Lines 65-67 of Column 1 and Lines 1-2 of Column 2).
10. Regarding claim 4, Vahalia discloses a system wherein all request between the systems occurs over network interface address. (Lines 65-67 of Column 1 and Lines 1-4 of Column 2).
11. Regarding claim 5, Mosher discloses a system wherein the backup system can store logic operations of changes on the local computer system that are then used for fail over purposes. (Lines 18-25 of Column 2).
12. Regarding claim 18, Mosher discloses that audit update information and audit backup records can be stored on the backup data computer systems. (Lines 1-9 of Column 2).
13. Regarding claim 19, Mosher discloses that audit update information and audit backup records can be stored on the backup data computer systems. (Lines 1-9 of Column 2).
14. Regarding claim 25:
  - e. Regarding the limitation of “a primary service instance operating on the computer system, including means for receiving and processing client requests, from the client processes,” Mosher discloses a system with a local database computer system that can modify the local database. (Lines 40-46 of Column 1).
  - f. Regarding the limitation of “at least one backup service instance operating on the computer system, including means for receiving and processing the client requests,

Art Unit: 2114

wherein each backup service instance is locally equivalent to the primary service instance,” Mosher discloses a system with a remote database computer system that can modify the local database. (Lines 50-56 of Column 1).

g. Regarding the limitation of “means for communicating with each backup service instance to provide an indication of the determined logical requests to each backup service instance” Mosher discloses a system with an updater that applies image updates and then backs out of the updates based upon commit/abort outcome is unknown. (Lines 18-25 of Column 2).

h. Regarding the limitation of “wherein the primary service instance includes means for determining which external requests, when processed by the secondary service instance, are logical requests such that processing of the determined logical requests cause the external view of each backup service instance to change,” Mosher discloses a system wherein a receiver on the remote computer system receives messages and processes the messages and update the database. (Lines 5-8 of Column 2). Mosher also discloses an RDF audit file offers logic protection to the remote computer. (Line 40-50 of Column 3). Mosher does not disclose a system wherein external request that are processed by the remote computer system cause a logical request of the remote system. However, Mosher does disclose a system in which the remote computer can execute procedures independent from the local computer system. Vahalia discloses a system wherein in a server-client computer system, the client computer can processes the messages and update the data on any of the data computer systems through changes to the logic locks which protect the data. (Lines 10-34 of Column 2). It would have been

Art Unit: 2114

obvious to one of ordinary skill in the art at the time of the invention to combine the database computer system of Mosher with the data access system of Vahalia. One of ordinary skill in the art would have been motivated because Mosher discloses that remote computers can execute procedures independent from the local computer system. (Lines 26-29 of Column 2).

15. Regarding claim 26, Vahalia discloses a system wherein all request between the systems occurs over network interface address. (Lines 65-67 of Column 1 and Lines 1-4 of Column 2).

16. Regarding claim 27, Mosher discloses that audit update information and audit backup records can be stored on the backup data computer systems. (Lines 1-9 of Column 2).

17. Regarding claim 28, Vahalia discloses a system with operational data processing systems and backup system with different network interface addresses that require setting when fail over occurs. (Lines 65-67 of Column 1 and Lines 1-2 of Column 2).

18. Regarding claim 39

i. Regarding the limitation of “operating a primary service instance on the computer system, including means for receiving and processing client requests, from the client processes,” Mosher discloses a system with a local database computer system that can modify the local database. (Lines 40-46 of Column 1).

j. Regarding the limitation of “operating at least one backup service instance on the computer system, including means for receiving and processing the client requests, wherein each backup service instance is locally equivalent to the primary service instance,” Mosher discloses a system with a remote database computer system that can modify the local database. (Lines 50-56 of Column 1).



k. Regarding the limitation of “communicating with each backup service instance to provide an indication of the determined logical requests to each backup service instance” Mosher discloses a system with an updater that applies image updates and then backs out of the updates based upon commit/abort outcome is unknown. (Lines 18-25 of Column 2).

l. Regarding the limitation of “wherein the primary service instance includes means for determining which external requests, when processed by the secondary service instance, are logical requests such that processing of the determined logical requests cause the external view of each backup service instance to change,” Mosher discloses a system wherein a receiver on the remote computer system receives messages and processes the messages and update the database. (Lines 5-8 of Column 2). Mosher also discloses an RDF audit file offers logic protection to the remote computer. (Line 40-50 of Column 3). Mosher does not disclose a system wherein external request that are processed by the remote computer system cause a logical request of the remote system. However, Mosher does disclose a system in which the remote computer can execute procedures independent from the local computer system. Vahalia discloses a system wherein in a server-client computer system, the client computer can processes the messages and update the data on any of the data computer systems through changes to the logic locks which protect the data. (Lines 10-34 of Column 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the database computer system of Mosher with the data access system of Vahalia. One of ordinary skill in the art would have been motivated because Mosher discloses that remote

Art Unit: 2114

computers can execute procedures independent from the local computer system. (Lines 26-29 of Column 2).

19. Regarding claim 40, Vahalia discloses a system with a first data processing system that provides service to clients. The second data processing system maintains locks on the system and thereby manages data differently. (Lines 9-15 of Column 2).

20. Regarding claim 41, Vahalia discloses a system with operational data processing systems and backup system with different network interface addresses that require setting when fail over occurs. (Lines 65-67 of Column 1 and Lines 1-2 of Column 2).

21. Regarding claim 42, Vahalia discloses a system wherein all request between the systems occurs over network interface address. (Lines 65-67 of Column 1 and Lines 1-4 of Column 2).

22. Regarding claim 43, Mosher discloses a system wherein the backup system can store logic operations of changes on the local computer system that are then used for fail over purposes. (Lines 18-25 of Column 2).

23. Regarding claim 56, Mosher discloses that audit update information and audit backup records can be stored on the backup data computer systems. (Lines 1-9 of Column 2).

24. Regarding claim 57, Mosher discloses that audit update information and audit backup records can be stored on the backup data computer systems. (Lines 1-9 of Column 2).

25. Regarding claim 63:

m. Regarding the limitation of “operating a primary service instance on the computer system, including means for receiving and processing client requests, from the client processes,” Mosher discloses a system with a local database computer system that can modify the local database. (Lines 40-46 of Column 1).

Art Unit: 2114

n. Regarding the limitation of “operating at least one backup service instance on the computer system, including means for receiving and processing the client requests, wherein each backup service instance is locally equivalent to the primary service instance,” Mosher discloses a system with a remote database computer system that can modify the local database. (Lines 50-56 of Column 1).

o. Regarding the limitation of “communicating with each backup service instance to provide an indication of the determined logical requests to each backup service instance” Mosher discloses a system with an updater that applies image updates and then backs out of the updates based upon commit/abort outcome is unknown. (Lines 18-25 of Column 2).

p. Regarding the limitation of “wherein the primary service instance includes means for determining which external requests, when processed by the secondary service instance, are logical requests such that processing of the determined logical requests cause the external view of each backup service instance to change,” Mosher discloses a system wherein a receiver on the remote computer system receives messages and processes the messages and update the database. (Lines 5-8 of Column 2). Mosher also discloses an RDF audit file offers logic protection to the remote computer. (Line 40-50 of Column 3). Mosher does not disclose a system wherein external request that are processed by the remote computer system cause a logical request of the remote system. However, Mosher does disclose a system in which the remote computer can execute procedures independent from the local computer system. Vahalia discloses a system wherein in a server-client computer system, the client computer can processes the

Art Unit: 2114

messages and update the data on any of the data computer systems through changes to the logic locks which protect the data. (Lines 10-34 of Column 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the database computer system of Mosher with the data access system of Vahalia. One of ordinary skill in the art would have been motivated because Mosher discloses that remote computers can execute procedures independent from the local computer system. (Lines 26-29 of Column 2).

26. Regarding claim 64, Vahalia discloses a system wherein all request between the systems occurs over network interface address. (Lines 65-67 of Column 1 and Lines 1-4 of Column 2).

27. Regarding claim 65, Mosher discloses that audit update information and audit backup records can be stored on the backup data computer systems. (Lines 1-9 of Column 2).

28. Regarding claim 66, Vahalia discloses a system with operational data processing systems and backup system with different network interface addresses that require setting when fail over occurs. (Lines 65-67 of Column 1 and Lines 1-2 of Column 2).

29. Regarding claim 77:

q. Regarding the limitation of “operating a primary service instance on the computer system, including means for receiving and processing client requests, from the client processes,” Mosher discloses a system with a local database computer system that can modify the local database. (Lines 40-46 of Column 1).

r. Regarding the limitation of “operating at least one backup service instance on the computer system, including means for receiving and processing the client requests, wherein each backup service instance is locally equivalent to the primary service

instance,” Mosher discloses a system with a remote database computer system that can modify the local database. (Lines 50-56 of Column 1).

s. Regarding the limitation of “communicating with each backup service instance to provide an indication of the determined logical requests to each backup service instance” Mosher discloses a system with an updater that applies image updates and then backs out of the updates based upon commit/abort outcome is unknown. (Lines 18-25 of Column 2).

t. Regarding the limitation of “wherein the primary service instance includes means for determining which external requests, when processed by the secondary service instance, are logical requests such that processing of the determined logical requests cause the external view of each backup service instance to change,” Mosher discloses a system wherein a receiver on the remote computer system receives messages and processes the messages and update the database. (Lines 5-8 of Column 2). Mosher also discloses an RDF audit file offers logic protection to the remote computer. (Line 40-50 of Column 3). Mosher does not disclose a system wherein external request that are processed by the remote computer system cause a logical request of the remote system. However, Mosher does disclose a system in which the remote computer can execute procedures independent from the local computer system. Vahalia discloses a system wherein in a server-client computer system, the client computer can processes the messages and update the data on any of the data computer systems through changes to the logic locks which protect the data. (Lines 10-34 of Column 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the

Art Unit: 2114

database computer system of Mosher with the data access system of Vahalia. One of ordinary skill in the art would have been motivated because Mosher discloses that remote computers can execute procedures independent from the local computer system. (Lines 26-29 of Column 2).

30. Regarding claim 78, Vahalia discloses a system with a first data processing system that provides service to clients. The second data processing system maintains locks on the system and thereby manages data differently. (Lines 9-15 of Column 2).

31. Regarding claim 79, Vahalia discloses a system with operational data processing systems and backup system with different network interface addresses that require setting when fail over occurs. (Lines 65-67 of Column 1 and Lines 1-2 of Column 2).

32. Regarding claim 80, Vahalia discloses a system wherein all request between the systems occurs over network interface address. (Lines 65-67 of Column 1 and Lines 1-4 of Column 2).

33. Regarding claim 81, Mosher discloses a system wherein the backup system can store logic operations of changes on the local computer system that are then used for fail over purposes. (Lines 18-25 of Column 2).

34. Regarding claim 94, Mosher discloses that audit update information and audit backup records can be stored on the backup data computer systems. (Lines 1-9 of Column 2).

35. Regarding claim 95, Mosher discloses that audit update information and audit backup records can be stored on the backup data computer systems. (Lines 1-9 of Column 2).

36. Regarding claim 101:

u. Regarding the limitation of “operating a primary service instance on the computer system, including means for receiving and processing client requests, from the client

processes,” Mosher discloses a system with a local database computer system that can modify the local database. (Lines 40-46 of Column 1).

v. Regarding the limitation of “operating at least one backup service instance on the computer system, including means for receiving and processing the client requests, wherein each backup service instance is locally equivalent to the primary service instance,” Mosher discloses a system with a remote database computer system that can modify the local database. (Lines 50-56 of Column 1).

w. Regarding the limitation of “communicating with each backup service instance to provide an indication of the determined logical requests to each backup service instance” Mosher discloses a system with an updater that applies image updates and then backs out of the updates based upon commit/abort outcome is unknown. (Lines 18-25 of Column 2).

x. Regarding the limitation of “wherein the primary service instance includes means for determining which external requests, when processed by the secondary service instance, are logical requests such that processing of the determined logical requests cause the external view of each backup service instance to change,” Mosher discloses a system wherein a receiver on the remote computer system receives messages and processes the messages and update the database. (Lines 5-8 of Column 2). Mosher also discloses an RDF audit file offers logic protection to the remote computer. (Line 40-50 of Column 3). Mosher does not disclose a system wherein external request that are processed by the remote computer system cause a logical request of the remote system. However, Mosher does disclose a system in which the remote computer can execute

procedures independent from the local computer system. Vahalia discloses a system wherein in a server-client computer system, the client computer can processes the messages and update the data on any of the data computer systems through changes to the logic locks which protect the data. (Lines 10-34 of Column 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the database computer system of Mosher with the data access system of Vahalia. One of ordinary skill in the art would have been motivated because Mosher discloses that remote computers can execute procedures independent from the local computer system. (Lines 26-29 of Column 2).

37. Regarding claim 102, Vahalia discloses a system wherein all request between the systems occurs over network interface address. (Lines 65-67 of Column 1 and Lines 1-4 of Column 2).

38. Regarding claim 103, Mosher discloses that audit update information and audit backup records can be stored on the backup data computer systems. (Lines 1-9 of Column 2).

39. Regarding claim 104, Vahalia discloses a system with operational data processing systems and backup system with different network interface addresses that require setting when fail over occurs. (Lines 65-67 of Column 1 and Lines 1-2 of Column 2).

### ***Claim Objections***

40. Claim 55 is objected to because of the following informalities: Dependence states that claim 55 is dependent from claim 59. The examiner believes that the dependence is supposed to be claim 39. Appropriate correction is required.



Art Unit: 2114

***Allowable Subject Matter***

41. Claims 6-17, 20-24, 29-38, 44-55, 58-62, 67-76, 82-93, 96-100, and 105-114 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

- Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tim Bonura**.
  - The examiner can normally be reached on **Mon-Fri: 8:30-5:00**.
  - The examiner can currently be reached at: **703-305-7762**. On or after October 15, 2004 the examiner can be reached at: **571-272-3654**.
- If attempts to reach the examiner by telephone are unsuccessful, please contact the examiner's supervisor, **Rob Beausoliel**.
  - The supervisor can be reached on **703-305-9713**.
- The fax phone numbers for the organization where this application or proceeding is assigned are:
  - **703-872-9306 for all patent related correspondence by FAX.**
- Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov/>. Should you

Art Unit: 2114

have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

- Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **receptionist** whose telephone number is: **703-305-3900**.
- Responses should be mailed to:

- **Commissioner of Patents and Trademarks**

**P.O. Box 1450**

**Alexandria, VA 22313-1450**



**NADEEM IQBAL**

**PRIMARY EXAMINER**

tmb

September 21, 2004

Tim Bonura  
Examiner  
Art Unit 2114